Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

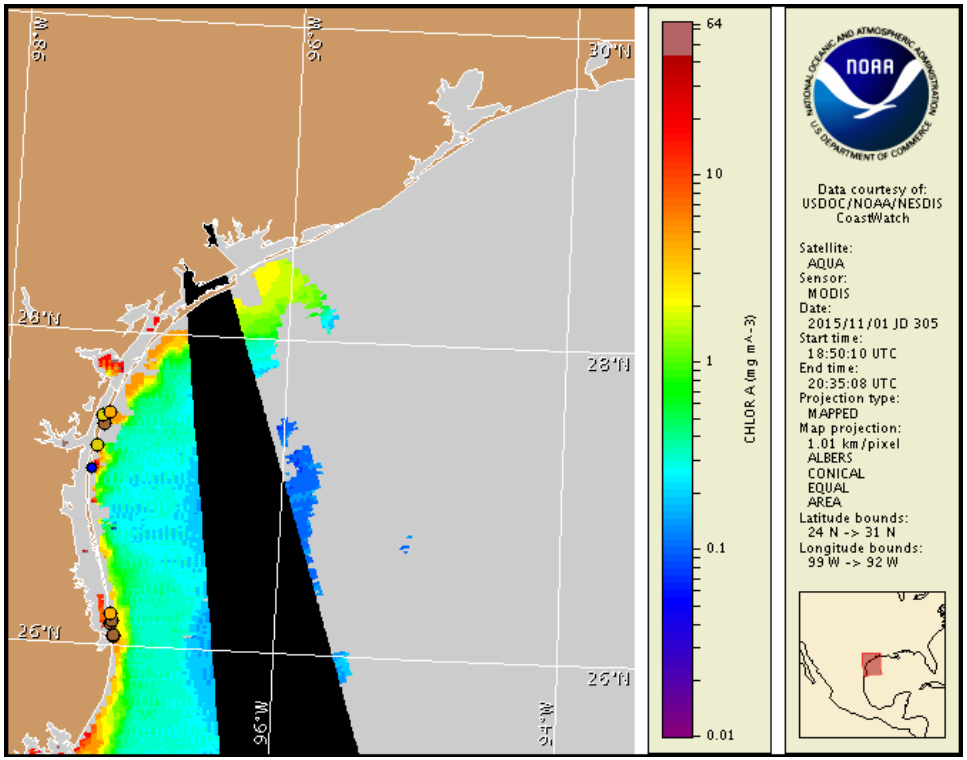
Monday, 02 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 29, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 23 to 30: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

---

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from San Antonio Bay to the Rio Grande. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, November 2 through Thursday, November 5 is listed below:

Region: Forecast (Duration)
Bay region-San Antonio to Espiritu Santo Bay: High (M-Th)
Bay region-Corpus Christi Bay: High (M-Th)
Aransas Pass to PINS region: Moderate (M-Th)
Bay region-Upper Laguna Madre: Moderate (M-Th)
Padre Island National Seashore region: Moderate (M-Th)
Mansfield Pass to Beach Access 6 region: High (M-Th)
Bay region-Lower Laguna Madre to Laguna Vista: Moderate (M-Th)
Beach Access 6 to Rio Grande region: Moderate (M-Th)
All Other Texas Regions: None expected (M-Th)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past few days, reports of respiratory irritation have been received from Padre Island National Seashore. Reports of dead and distressed fish have been received from several coastal and bay regions from Espiritu Santo Bay to the Lower Laguna Madre. Discolored water has been reported in Corpus Christi Bay.

Analysis

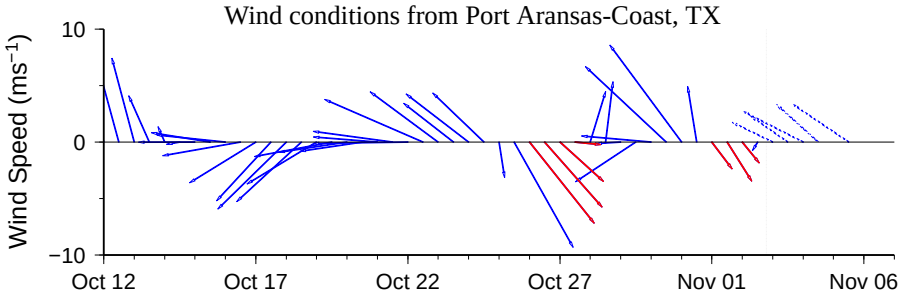
Karenia brevis concentrations range from 'background' to 'high' from San Antonio Bay to the Rio Grande. Recent sampling from the San Antonio Bay area identified 'high' *K. brevis* concentrations within Espiritu Santo Bay (TPWD; 10/26-30). Within the Aransas Bay region, the Imaging FlowCytobot at UTMSI Pier in Port Aransas indicates *K. brevis* concentrations between 'background' and 'low b' (TPWD, TAMU; 10/26-30). No new sample information has been received for the Padre Island National Seashore (PINS) or South Padre Island regions, where the most recently reported samples included up to 'medium' *K. brevis* concentrations (TPWD; 10/23-28). Reports of dead and/or distressed fish have been received from Espiritu Santo Bay, Aransas Pass, Packery Channel, Corpus Christi Bay, and the Upper and Lower Laguna Madre. Discolored water has been reported from Corpus Christi Bay (TPWD; 10/26-30). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (11/1, shown left) is obscured by clouds from Sabine Pass to Aransas Pass, limiting analysis in this region. Elevated chlorophyll (2-5 μg/L) is visible in patches along- and offshore the Texas coast from Port Aransas to the Rio Grande.

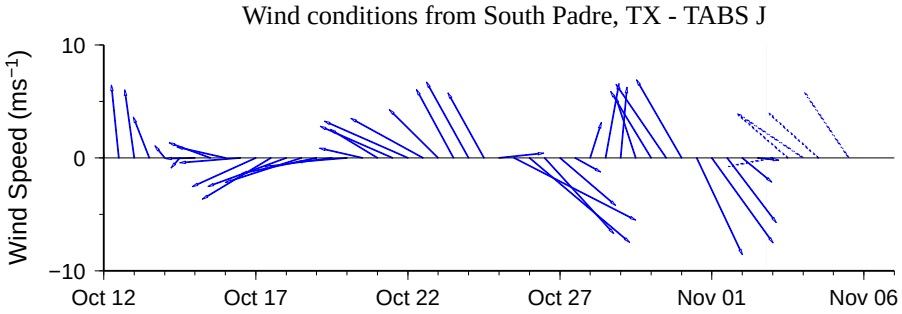
Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 60km south from Pass Cavallo, 20km south

from Aransas Pass, and <10km north (negligible) from Brazos Santiago Pass from November 1 to November 5.

Derner, Keeney



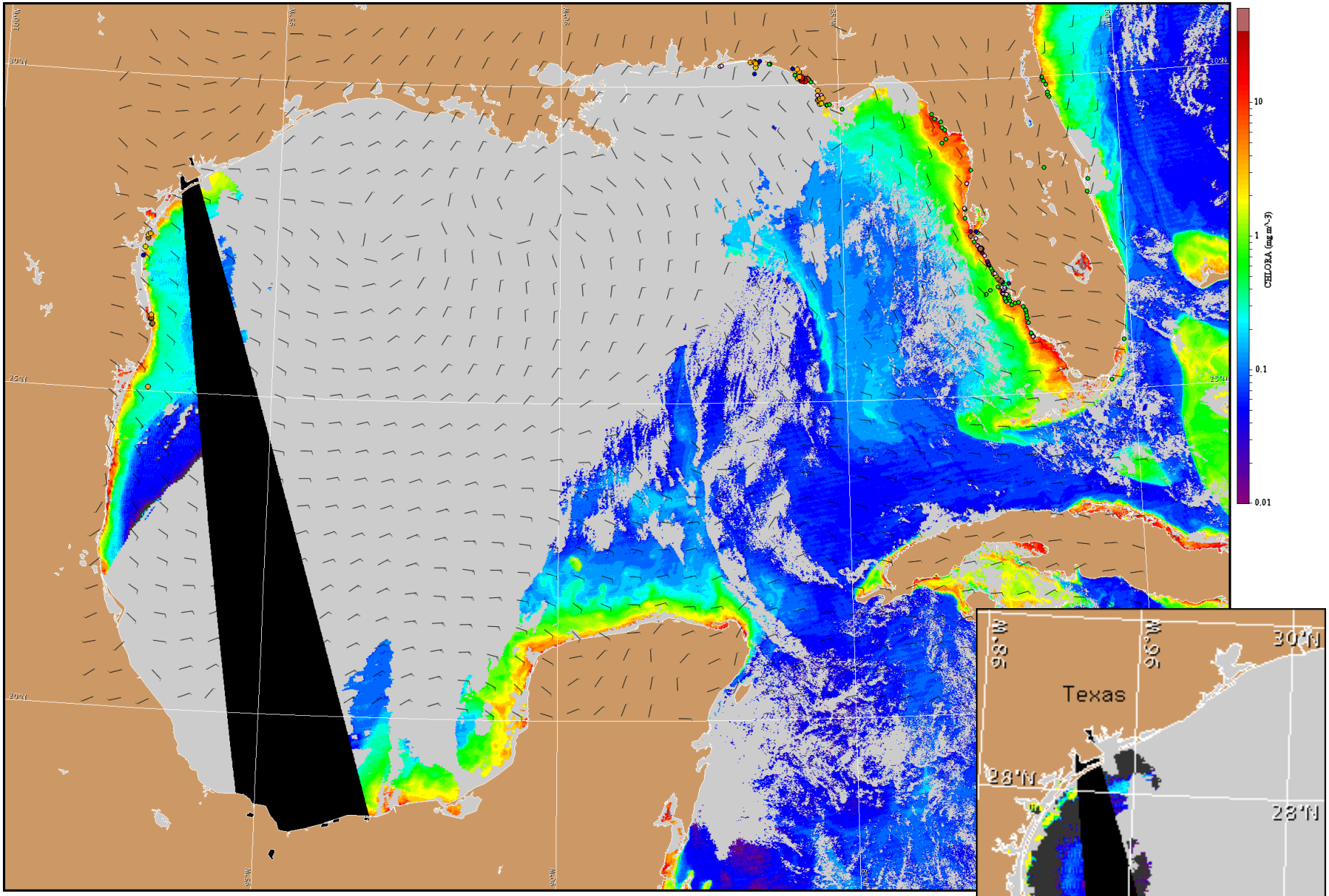
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

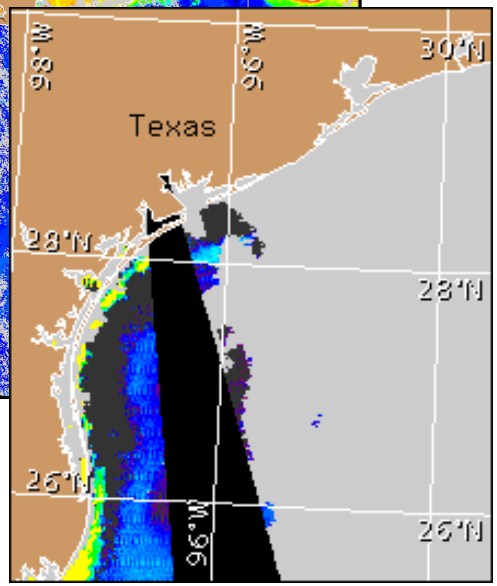
Port Aransas to Baffin Bay: North to east winds (5kn, 3m/s) today becoming southeast (5-15kn, 3-8m/s) tonight through Thursday.

Port Mansfield to the Rio Grande: East winds (5-10kn, 3-5m/s) today becoming south-east (7-15kn, 4-8m/s) tonight through Thursday.



Satellite chlorophyll image and forecast winds for November 3, 2015 12Z with points representing cell concentration sampling data from October 23 to 30: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).